

### 3.3 CULTURAL RESOURCES

The VPA has a wide array of environmental settings and resources long used by humans. Consequently, the VPA encompasses a large and diverse assemblage of prehistoric archaeological sites, historical archaeological sites and localities, and locations of traditional cultural value. For the purpose of this chapter, *cultural resources* are defined as both prehistoric and historical archaeological sites and structures, as well as non-archaeological and non-structural sites (i.e., waterways, view sheds, and resource areas) that have been identified as important for traditional and/or ideological reasons by the various Native American groups with ancestral and/or present ties to the area. Many of these cultural resources have multiple associations and use values. These non-renewable resources provide a record of prehistoric and historical cultures and events and have use value for many contemporary groups including local residents, scientists, and Native Americans.

#### 3.3.1 Previous Projects and Known Cultural Resource Types within the VPA

Various explorers, scholars, government institutions, academic institutions, and private cultural resource-consulting firms have carried out anthropological and archaeological research within the VPA. The quality and quantity of research carried out by these different entities has, to date, proven highly variable. Previous research projects range from small surveys of a limited geographic area to large, linear projects spanning the entire VPA.

Beginning as early as 1892 and extending to 1926, approximately seventeen significant archaeological projects were completed in the Uinta Basin. These projects recorded numerous sites and recovered many artifacts and data. As most of these projects were undertaken in a period when rigorous scientific standards were not the norm, much of the data is poorly recorded, reports are descriptive or speculative in nature, or data has been lost. Nonetheless, these early reports remain valuable as descriptive or comparative sources of data (Spangler 1995:81).

By the mid-1930s, the application of more rigorous and systematic archaeological standards was becoming more common. Beginning in this period, researchers focused on areas where high site frequencies were anticipated (i.e., in canyons, along drainages, near permanent water, etc.). As expected, research in these areas yielded high frequencies of sites with evidence of permanent settlement and horticulture. Areas that have been studied in this manner include the Dinosaur National Monument area, Nine Mile Canyon, and various areas along the Tavaputs Plateau and Uinta Basin foothills (Spangler 1995:181). Prior to the 1970s, archaeologists associated with universities or research institutions carried out archaeological research in these areas. The passage of several environmental protection laws during the 1960s and 1970s (the foremost being the National Historic Preservation Act of 1966) spurred cultural resource management archaeology across the country. In the Uinta Basin, the first significant cultural resource management projects were carried out in the 1950s and 1960s - with a quantitative jump noted in the early 1970s (Spangler 1995:190). Since the 1930s, more than 62 significant archaeological projects have been completed in the Uinta Basin (Spangler 1995). Numerous archaeological sites were recorded during these projects, with large numbers recommended eligible to and many actually nominated to the NRHP (Appendix D).

### 3.3.2 Prehistoric and Ethnographic Site Types

The following section provides a basic description of the primary known prehistoric site types within the VPA. Some site types, such as artifact scatters, are included because they are common throughout the area and are a major component of the Section 106 compliance workload for BLM archaeologists. Others, such as burials, rock art, and ceremonial sites, may not occur in as large numbers as do artifact scatters but are included because they represent significant management challenges to the BLM due to their importance to Native American tribal groups.

**Rock Art** – A large number of rock art sites have been identified in the Uinta Basin and more are likely to exist. Rock art sites identified in the Uinta Basin are highly variable and may range from one depiction to a panel or series of panels with numerous depictions. Some sites contain large, multiple, and interconnected rock art panels. In addition to variations in size, numerous different rock art styles have been recorded in the Uinta Basin. In some instances rock art is located near other types of sites; in other instances, rock art is isolated. As rock art is frequently located in difficult terrain, a comprehensive survey of existing rock art and its relationships to other sites has been difficult to complete. Finally, rock art sites have routinely been subjected to acts of vandalism and are susceptible to deterioration (Spangler 1995:140-145). Currently, there remains much to be learned regarding known rock art sites with a high probability for further significant rock art discoveries.

**Well-preserved Open Camp and Village Sites** – Open camp and village sites are similar large prehistoric occupations, distinguished primarily on the basis of the presence or absence of residential structures. Campsites located on plateaus, outcrops, and valley floors characterize open campsites. These sites typically have evidence of lithic scatters, ceramic scatters, and projectile points, and are often defined on the presence of remnants of hearths and other features. Many of the sites have been characterized as hunting and butchering activity areas.

**Platform Sites** – Platform sites, or sites located on top of flattened knolls, are rare within the Uinta Basin. One site overlooking the Green River is an unusual site on a knoll that appears to have been leveled off, whether manually or by environmental processes is unknown. The leveled surface of the knoll has a circular structure made of flat sandstone slabs approximately 1.5 feet high with the interior filled with a light-colored clay material. This structure is unknown in function and, to date, it is the only known feature of its type within the Uinta Basin. Others could be present with the Uinta Basin, but have yet to be discovered.

**Rock Shelters and Caves** – As their name implies, rock shelter sites contain evidence of human occupation located within existing rock overhangs or caves. The range of rock shelter sites includes relatively long-term single occupations, multiple reuse occupations through time, and ephemeral single-use episodes. Rock shelters and caves are generally located within canyons, near permanent water sources, such as rivers or streams. Most of these sites also tend to be located on the southern side of canyons (Spangler 1995:162), although they can be found within any portion of geologically suitable areas.

**Prehistoric Architectural Sites** – A relatively wide range of site types is included in this category. Architectural sites have been recorded in open-air and sheltered settings, at nearly all elevations, and in virtually every environment within the Uinta Basin. However, some types of architecture are restricted to only certain regions or settings. To date, the range of architectural sites includes stone or masonry structures, pit structures, temporary brush structures, tipi rings, sweat lodges, storage structures or granaries, stone alignments or walls, cairns, and rubble

mounds. Structures such as tipi rings, temporary brush structures, and perhaps sweat lodges are located in more open environments, on knolls, cliff edges, or terraces. Stone or masonry structures, granaries, and often walls are found in cliffside rock shelters, in canyons or on ledges. Other stone or masonry structures can also be found in open areas, stream and river terraces, upland ridges, small cliff openings, and butte or mesa faces. Typically, such structures are found within reasonable proximity of sandstone formations and outcrops, which provide much of the source material for building them.

**Prehistoric Artifact Scatters** – Prehistoric artifact scatters may be encountered in open-air or sheltered settings and in nearly all environment types and elevations. These types of sites are located throughout the Uinta Basin and number from the hundreds to the thousands. Artifact scatters typically consist of lithic artifacts such as chipped stone debitage, tools, cores, and tool and core fragments. However, many artifact scatters may also contain ceramic artifacts, groundstone artifacts, or a combination of lithic, ceramic, and groundstone artifacts. Previously recorded artifact scatters in the Uinta Basin range from only a few to hundreds (or even thousands) of artifacts. Artifact scatters do not typically contain evidence of architecture, although smaller features, such as hearths, may be present either on the surface or below the surface. The function of artifact scatters is highly variable and can be subject to differing interpretations. Minimally, artifact scatters are likely to have been involved in short-term land use settlement systems.

**Prehistoric Resource Procurement Sites** – Locations where prehistoric populations procured a specific resource are common within the Uinta Basin. A wide range of resources appear to have been exploited in a manner that left archaeological evidence, including game animals (hunting sites), chipped stone materials (lithic procurement sites), and floral materials (botanical processing sites). Several different hunting site types have been identified to date, including hunting blinds, game drives, game traps, and butchery sites. Hunting sites can be designed to either funnel game toward a desired goal or to hide the hunter in ambush-style hunting. In general, hunting sites are identifiable due to the strategic placement of rock or brush structures along game trails, water sources, near topographic features that restricted game movement, or in locales that provide an advantage in elevation. Butchery sites are typically identified by the presence of high numbers of animal bones that bear evidence of processing - such as cut marks or diagnostic breakage patterns. In many instances, the kill location and butchery location are the same.

**Prehistoric Ceremonial Sites** – Ceremonial sites are usually located in areas with panoramic views, and are recognized by the presence of a stone circle or alignment that contains little or no artifacts. Ceremonial sites are interpreted as vision quest locations (Reed & Metcalf 1999:52). The vision quest interpretation has largely been inferred from ethnographic work among modern Native American groups. However, the actual nature of prehistoric ceremonial sites is currently not well understood.

**Prehistoric Isolated Features** – Sites recorded as prehistoric isolated features typically consist of one isolated cultural feature that has few or no associated artifacts. In many instances the isolated feature is unidentified, while in other cases the feature is identified as a simple cultural feature (i.e., a cairn, etc.).

**Prehistoric Landscapes** – Prehistoric landscapes are a type of cultural resource that encompasses a range of cultural resource sites within a given environment. The study of prehistoric landscapes is a relatively new endeavor in the New World. This approach has become

more common in the Old World, namely Great Britain and Europe. The interaction of human sociopolitical and economic systems and the landscapes in which humans live and create environments is one main focus of research into landscape archaeology. In short, prehistoric landscape can be defined as including humans and their anthropogenic ecosystem.

The types of landscapes that could be characterized within the Uinta Basin include canyons and plateaus. These encompassing landscapes are large in scale, but contain hundreds of smaller, more distinct units of residential dwellings, storage areas, resources scatters, etc., that make up the landscape. Individually, the sites within a given landscape may not be particularly noteworthy or significant. However, when each site is taken into consideration with other, geographically close sites, a landscape emerges that encompasses multiple types of past human uses of the landscape. These individual sites cluster together in a setting that sets it apart from the region as a whole. These landscapes could also have importance for extant Native American tribes as sacred or important places with cultural importance.

**Prehistoric Trails** – Travel routes along river corridors and open drainages were common ways for prehistoric peoples to get from area to area. The White River was a traditional Ute travel route within the eastern Uinta Basin to western Colorado (Spangler 1995:872). Other trail areas have been formally identified to the east of the region (Reed and Metcalf 1999:51) as well as in the Book Cliffs (Blaine Phillips personal communication 2002), and additional unidentified prehistoric and protohistoric trails are likely to exist within the region. Prehistoric trails could potentially be identified through remote sensing and ground-truthing.

### 3.3.3 Historical Site Types

The following section provides a basic description of the primary known historical site types within the VPA. Undoubtedly, other site types do exist within the area, but those listed here comprise the bulk of historical sites currently managed by the BLM.

**Historical Architectural Sites** – Historical architecture sites range from simple one-room cabins to multi-story and multi-room structures. Historical structure sites may contain abandoned structures or evidence of structures, while other sites might consist of a structure or structures that are still in use. To date, historical architecture sites include structures such as cabins/homesteads, forts or military posts, trading posts, private residences, line shacks, civic structures, stone or masonry walls, fences, corrals or pens (both Anglo and Ute), sheds, barns, or outhouses. Although typically located in desirable areas or near reliable water sources, historical architecture can be found in nearly every setting or environment. Among the more common structural sites with the VPA are those towns, such as Dragon, Watson, and Rainbow mines, and rail sidings associated with Gilsonite mining in the region.

**Artifact Scatters/Middens** – Historical artifact scatters and middens may consist of one or more of the following: glass, ceramics, cans, building materials, barbed wire, cartridge cases, faunal material, personal items, or miscellaneous artifacts. Artifact densities may range from relatively sparse to relatively dense scatters. Historical artifact scatters can represent light or intense land use, and can be encountered in nearly any environment or elevation. Artifact scatters may be associated with isolated residences, larger settlements, campsites, or, they may be the result of random dumping episodes.

**Aspen Art and Historical Inscriptions** – Aspen art (i.e., dendroglyphs) and historical inscriptions are present on BLM lands within the VPA. These inscriptions have been found both on

trees (primarily aspen) and on rock faces. Aspen art is considered to be any historical carving or engraving made on trees. Aspen art includes carvings related to activities such as settlement (e.g. as property markers) as well as random works found near roads or near historical campsites. The frequencies of aspen art range from a single mark, multiple markings on one tree, or a series of markings on multiple trees. Aspen art is often associated with particular ethnic groups, such as the Basque (primarily in Nevada), or with particular labor groups, such as shepherders, timber men, and others who spend time within aspen groves. Elsewhere in Utah, particular groves of trees became favorites for carvers, and dozens of inscriptions can be found which span long periods of time. These groves essentially became historical “message boards” for users of the area.

**Historical Burials/Cemeteries** – Early historic period burials may consist of isolated burials of a few or one individual, while early cemeteries will contain numerous individuals. Currently, several cemeteries exist within the Uinta Basin. In addition, several isolated burials, located both on public and private land, have been recorded. Other isolated burials might yet be encountered.

**Irrigation Systems/Canals** – The development of agriculture and ranching in the Uinta Basin often required the building of waterworks to bring water into relatively dry regions. In general, irrigation works are considered as improvements, which have been made on natural drainages, or as the construction of new waterways. Irrigation works can include ponds, dams, concrete, stone-lined or earthen ditches or canals, headgates, culverts, diversion gates, or wells.

**Mining Sites** – In many parts of the Uinta Basin, the mining industry has played an important economic role. Mining related sites are variable. Recorded examples include small-scale mining efforts at one locale, small-scale operations at multiple sites, and complex mining works at one or more locations carried out by large mining firms. The goals of Uinta Basin mining efforts are also varied, with several different kinds of precious metals (i.e., gold, silver, copper, and uranium), minerals, and hydrocarbons sought. Besides the actual mine or quarry, mining sites can have related architecture, temporary camps, ore piles, middens, artifact scatters, burials, or aspen art located nearby. Additionally, railroads constructed specifically to serve the mining industry may also be associated with mine sites.

**Oil and Gas Industry Sites** – Oil and gas industry historical sites can consist of pipelines, wells, processing and transport facilities, and “prospects.” The first well in the Uinta Basin was drilled on the East Tavaputs Plateau in 1900 (Spangler 1995:822). Although unsuccessful, the sinking of this first well foreshadowed the fervent activity that would occur in the area 40 years later. While more than 40 wells were drilled in the Uinta Basin between 1908 and 1913, most historical archaeological and structural sites associated with the industry date to the post-World War II era, when oil and gas exploration began in earnest.

**Privies/Outhouses** – Prior to the installation of buried sewer lines, sanitation facilities often consisted of excavated pits designed to collect and contain waste. Although originally intended to serve as sanitation facilities, privies often served as secondary refuse dumping locales. Also during use, personal items were often accidentally dropped into privies. Through secondary dumping and accidental loss, many privies contain high frequencies of artifacts. As privies routinely contain high numbers of artifacts, in an often-undisturbed subsurface deposit, privies may serve as valuable sources of data. Privies are routinely found in association with campsites, private residences, public structures, military posts, and commercial buildings. Privy sites have been found on mining sites and other industrial sites as well. No clear indication of the frequency and/or distribution of such sites could be gleaned from Spangler (1995), thus it is unclear how

many historical privies and outhouses are present on BLM lands within the VPA. However, given their general association with permanent and/or long-term occupation sites, few privies are likely to be found on BLM lands.

**Historical Transportation Sites** – Establishing efficient transportation routes was one of the main goals of explorers and settlers during the settlement of the west. The Uinta Basin was no different. As Euroamericans settled the Uinta Basin, establishing efficient travel avenues was of vital importance in aiding the growth of settlements, the mining industry, and the agriculture and ranching businesses. To date, identified transportation related sites include trails, paths, paved or unpaved roads, bridges, railroads, wagon or stagecoach routes, stagecoach or railroad stops, railroad section stations, ferry sites, and airstrips or runways. Furthermore, as trappers and fur traders routinely used waterways for travel, the shores of various sections of waterways might contain evidence of early travel.

### **3.3.4 Non-Archaeological Site Types**

Non-archaeological site types are distinguished from archaeological site types in order to discuss places that are not necessarily associated with prehistoric or historical artifacts assemblages and collections. Tribal representatives typically identify these sites during the government-to-government consultation process that is required of federal agencies. However, Traditional Cultural Properties can also be identified by representatives of other culture groups, such as historical culture groups associated with the Euro-American migration to the western United States. Some common site types are lakes and springs, land features, and traditional gathering or collection areas.

**Lakes and Springs** – Several tribes, including the Shoshone and Ute, claim places of water as places of traditional importance and have traditional stories about mythical beings, or water spirits, that live in lakes, rivers, and springs (Spangler 1995). No specific places of this type have been identified in lands managed by the VFO. However, an ethnographic overview for the Flaming Gorge Dam Environmental Impact Statement prepared by SWCA for the USBR recorded several stories about “water babies” and other mythical beings seen in the Green River in historic times (Rhodenbaugh and Newton 2000). None of these areas were identified as Traditional Cultural Properties.

**Traditional Gathering or Collection Areas** – Traditional plant or other resource gathering areas may be places of traditional importance to Native American groups. These areas are generally places where Native Americans go to collect resources such as medicinal plants used and minerals to be used in ceremonies and are often in current use when identified. Recently, Native Americans have also identified hunting areas as Traditional Cultural Properties (Newton and Hancock 2000). No specific places of this type have been recorded on lands managed by the VFO.

**Land Features** – Large geographic regions, such as deserts, mountain ranges, and valleys are often identified as Traditional Cultural Places but few have been formally documented as such. According to Deloria and Stoffle (1998), the Oquirrh Mountains and Granite Mountain near Salt Lake contains various places that are considered to be traditionally important or sacred to the Goshute Indians. Deloria and Stoffle did not specify what these places were or precisely where they were located. Bull Lake, which is located on the Wind River reservation, is considered to be a place of traditional importance to the Eastern Shoshone (Shimkin 1986). It is said that Bull

Lake is where monsters live and if eaten, the monsters will change into water buffalo and disappear. No specific places of this type have been recorded on lands managed by the VFO.

### **3.3.5 General Site Locations and High Site Density Areas**

Cultural resources are scattered throughout the VPA. Present knowledge of their locations is largely constrained by the nature of cultural resource investigations, most of which have been driven by the Section 106 compliance needs of development projects. As such, existing data on site types, locations, and significance (use values) consists of snapshots across the VPA rather than a comprehensive picture. Nevertheless, based on these data, as well as on a number of overview surveys, it is possible to define the types of environmental settings where prehistoric and historical sites are more or less likely to occur. Overview surveys and existing data provide a general picture of site location tendencies that can be used to describe the places where prehistoric and historical sites are likely to exist.

During the late 1970s and early 1980s a number of surveys called “Class II” surveys were undertaken in order to attempt to determine if environmental variables could predict prehistoric archaeological site location in a way that would preclude the need to conduct formal surface inventories in particular environmental settings (Spangler 1995:226). Because the surveys found that prehistoric archaeological sites could be found across nearly all environmental zones, these surveys failed to meet their original goals. Furthermore, the surveys were unable to accurately predict specific site locations. However, the surveys were able to demonstrate good associations of prehistoric archaeological sites with general environmental zones. In other words, while specific site locations could not be predicted, and it appeared that there was potential for the presence of at least one or a few cultural resource sites in nearly all environmental zones of a given area, the Class II surveys were able to identify zones that had higher and lower frequencies of prehistoric archaeological sites.

The association of prehistoric archaeological sites with particular environmental zones can serve as a useful management tool for identifying areas where anticipated activities would have greater or lesser potential for impacts on prehistoric cultural resources. The Class II surveys, summarized in Spangler (1995:226-242), identified that proximity to water and certain vegetation types tended to influence site density. Areas within approximately 1 km of permanent water or within immediate proximity of a semi permanent water source appear to have high probabilities for cultural resource site occurrence. Furthermore, vegetation zones dominated by juniper were also identified as areas with high potential for cultural resource site locations. Finally, areas of intermittent sand dunes also tended to have high densities of prehistoric archaeological sites. Areas lacking water, juniper trees, or sand dunes, and areas of relatively steep slope tended to have low site densities. Areas of high site density tended to have between 1 and 7 sites per square mile with an average of 4.87 sites/square mile while areas of low density had less than 1 site per square mile (Spangler 1995:226-242).

The locations of historical cultural resource sites are more difficult to predict. Because historical populations have greater ease of transportation and different economic interests, historical site locations are not as constrained by availability of water and particular vegetative resources as were the locations of prehistoric occupations. Furthermore, linear historical sites such as roads, railroads, and canals, are likely to crosscut a wide variety of topographic settings and environmental zones. Nonetheless, two factors are likely to have conditioned the location of

most historical cultural resource sites—proximity to watered/arable land for agriculture and proximity to mineral resources for extractive industries.

For the purposes of analysis, these factors were utilized to develop zones of high and low probability for cultural resource site locations. All areas within approximately 1 km of permanent water, or within juniper vegetation zones, sand dunes, or general area of historical mining districts were considered high site probability zones. Areas with greater than 30 percent slope, or not having any of the high site probability factors were considered low site probability zones.

In addition, four areas of high site density have been identified within the VPA through previous investigations. These areas, and the acreages they encompass, are identified in Table 3.3.1. To be certain, other areas of high site density exist within the planning area but have not yet been identified and verified through field studies. Areas of high site density, such as those listed in Table 3.3.1, have many significant use values. In particular, they have high scientific and conservation values, and in some cases, high traditional values as well. Such areas also tend to have high public use values, but these are outweighed by other use values that necessitate the restriction of activity within the areas.

<b>TABLE 3.3.1. KNOWN HIGH SITE DENSITY AREAS WITHIN THE VPA</b>	
<b>Site Name/Number</b>	<b>Acreage</b>
Uinta Foothills	33,059 acres
Little/Devil's Hole	10,878 acres
Upper Willow Creek	4,304 acres
Site 42Un1388 (Four Mile Wash)	560 acres

### 3.3.6 Known National Register Listed Sites

Existing data do, however, identify several cultural sites of determined local, regional, or national significance and four areas of high site density. The sites of determined significance are listed on the National Register of Historic Places (NRHP) (Table 3.3.2). Although these sites have been listed on the NRHP, it should be remembered that sites which have been determined eligible for listing on the NRHP but are not currently listed are afforded the same level of protection and consideration in planning and land use decisions as those that are listed. However, since the locations of every single eligible site within the planning area are not known, largely because of the dearth of investigative surveys that have been conducted, it is not possible to provide a comprehensive list or map of all such sites. Therefore, only those NRHP-listed sites are provided herein.

<b>TABLE 3.3.2. KNOWN NATIONAL REGISTER LISTED SITES WITHIN THE VPA</b>	
<b>Site Name/Number</b>	<b>Area</b>
Nine Mile Canyon	Nine Mile Canyon (East Portion)
John Jarvie Historic Ranch District	Browns Park
McConkie Ranch Petroglyphs	Dry Fork
Dr. John Parson Cabin Complex	Browns Park
Cocklebur Wash Petroglyphs	Jensen
Little Brush Creek Petroglyph Panel	Vernal

### 3.3.7 Summary of Cultural Resources

Cultural resources within the Vernal area are numerous, diverse, and widely dispersed. The resources range from small, ancient artifact scatters associated with prehistoric populations to historical resources like cabins, homesteads, mines, and railroads. Although these resources have been documented over years of study, a comprehensive picture of the exact distribution of the resources is not possible due to the large area encompassed and the lack of region-wide systematic study.

Nonetheless, previous data and investigations do provide a general picture of the types of sites present and their locations. Although it is not possible to provide exact data on the location of all types of cultural resources and to therefore gauge with precision the effects of particular management decisions on those resources, it is possible to derive general tendencies for site locations that can be used to gauge the relative probability and relative severity of the impacts of various management decisions on cultural resources in the overall area. For the purposes of subsequent analyses, areas within the VPA would be divided into zones with “High” and “Low” probabilities for cultural resources, based on the relationships between site location and environmental variables that have been established by previous research (Spangler 1995:226-242). High probability zones would be considered those that are within 1 km of permanent water, a juniper zone, sand dune areas, and historical mining districts. Low probability zones would be all areas with greater than 20 percent slope and areas not meeting the criteria for definition as a high probability zone. These criteria provide replicable proxy data for site location, and can be used to gauge whether a management decision is more or less likely to impact cultural resources.

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